Data Source: **EM CDB** Report Number: GEN-01b

Operations/Field Office: Ohio Print Date: 3/9/2000

0228 Site Summary Level: Ashtabula Environmental Management Project HQ ID:

Project OH-AB-01 / Remediation

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: The remediation of the RMI Extrusion facility involves:

- a. Deactivation of 26 buildings/facilities; decontamination of four of the 26 and demolition of the remaining 22 on-site buildings/facilities; remediation of associated equipment. This will result in 8,759 cubic meters (m3) of radiologically contaminated low level (LLW) and mixed low level wastes (MLLW) that will be processed to reduce the volume by 20% with the residual shipped to an approved off-site disposal site (Envirocare of Utah) for permanent disposal.
- b. Excavation of over 56,000 m3 of soil and concrete. More than 30,000 m3 will be uncontaminated and returned to the site as fill. Approximately 3,285 m3 will be untreatable LLW and MLLW and will be shipped to Envirocare of Utah for processing/disposal. Treatment/processing of 23,185 m3 of radiologically contaminated soils by soil washing will result in 2,750 m3 of LLW that will be shipped to an approved off-site disposal site for permanent disposal, with 20,435 m3 being placed back on site as clean fill.
- c. Ex-situ vapor stripping of 474 m3 of groundwater. The vapor stripping process will be used to remove hazardous constituents (trichloroethylene-TCE) from the groundwater in the area of a former evaporation pond. Once the TCE is removed from the MLLW contaminated soils (841 m3), the remaining radiological contamination will be below regulatory guideline and the soils will be used as clean fill.

Technical Approach: Deactivation and demolition of 22 buildings and removal of the equipment contained therein: Various legacy wastes stored onsite in drums will be repackaged and shipped to an appropriate, approved off-site disposal facility (to either the TSCA Incinerator in Oak Ridge, TN; NTS; or Envirocare of Utah). The remaining equipment, including a 3,850 ton extrusion press and associated tooling, will be surveyed and, as determined to be most cost effective, decontaminated and free released for disposal in a local land fill, or processed, loaded, and shipped to an approved off-site disposal facility. In order to ship waste as cost effectively as possible, the processing step will include the utilization of an industrial shredder and compactor/baler, as appropriate, to size reduce and compress individual waste elements to reach an optimum balance between weight and volume for each shipping container. The project will also employ intermodal-type waste shipment containers to maximize the flexibility and efficiency of each shipment campaign, i.e., both truck and rail shipment is possible using the same containers and onloading and offloading activities become more standardized. Generally moving from east to west on the site, the buildings will be demolished using aggressive demolition techniques. Clean, free released debris will be disposed of in a local approved solid waste landfill, and contaminated building debris will shipped as LLW to NTS or Envirocare of Utah.

Excavation of over 50,000 m3 and treatment/processing of 23,185 m3 of radiologically contaminated soils. Project land areas have been designated A thru G. Characterization data has suggested that areas A, E, and G can be free released now. This has been proposed to the NRC. The remaining areas will be remediated in parallel with building and equipment, except for the under-building soils and concrete, which will be addressed upon completion of the building structures. The project has successfully conducted a pilot study on the use of soil washing and chemical extraction techniques for removing radiological constituents from the soil. Bench-scale tests and a treatability study have indicated that 80% to 90% extraction efficiencies can be obtained utilizing this process. The regulatory standard that has been approved by the NRC is 30pCi/g. On-site and off-site soil contamination levels have been found to average <200pCi/g in the affected areas. Therefore, the soils remediation plan is to excavate soils in the affected areas to depths ranging from 6" to 36", as indicated by characterization data, and then to subject the excavated soils to the soil washing processing/treatment regime. It is presently projected that 88% efficiencies will be obtained which will result in approximately 2,750 m3 of soils that

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Project Description Narratives

must be disposed of at an off-site disposal facility as LLW. The remainder (20,435 m3) will be below the regulatory limit after processing and these soils will be put back on site as part of restoration fill.

Ex-situ vapor stripping of 474 m3 of groundwater: Beginning in FY 2001, the soils in the affected area will be excavated and subjected to a vapor stripping process. Subsequently, an ex-situ vapor stripping pump and treat process will be implemented to treat the groundwater in the area of a former evaporation pond. The TCE contamination will be removed utilizing this process over approximately 15 years. After this treatment removes the hazardous constituents (assumed FY 2016), the pump and treat equipment will be decontaminated and disposed of at an appropriate off-site land fill.

Technology Need: Improvement to the 20-year pump and treat schedule can be achieved by applying innovative technologies being deployed at Miamisburg (Mound) and Pinellas on similar problems. The Ashtabula Environmental Mangement Project (AEMP) will continue to participate in Ohio Site Technology Coordinating Group (OH-STCG) activities to analyze potential innovative alternatives to this process. AEMP will schedule and deploy an alternative solution to this problem should one be found that is cost effective AND which can receive USEPA approval in a timely manner.

Project Status in FY 2006:

All contaminated equipment, buildings, and soils will have been remediated. The RMI (formerly Reactive Metals, Inc.) Titanium Company Nuclear Regulatory Commission (NRC) license will have been terminated and the site will have been released for unrestricted use. Pump and treat activities, recommended by a Corrective Measures Study approved by the USEPA, that are associated with closure of the onsite Corrective Action Management Unit (CAMU) will be underway and continue to FY 2016.

Post-2006 Project Scope:

Long term surveillance and maintenance (LTSM) activities will consist of pump and treat actions to effect the closure of the on-site CAMU by removing trichloroethylene (TCE) from groundwater. As prescribed in the USEPA-approved Corrective Measures Study, these activities will continue until removal is complete--currently estimated to be FY 2016.

Project End State

The project end state of releasing the site for unrestricted use will be reached by the end of FY 2005. Pump and treat activities will remain, but will not prevent the NRC from terminating NRC license SMB-602.

Cost Baseline Comments:

The Baseline Estimate was prepared in accordance with Standard Estimating Practices as recommended by the American Society of Professional Estimators. The estimate is structured in a standardized format using estimating relational database software, and is organized by WBS, location, activity and item. The estimate is considered a Title I estimate with an accuracy range of +20% to -10%. Budgets and costs were escalated at 2.7% beginning in FY 2000. Contingency in the amount of \$4,962K is included in this PBS.

Assumptions: Compaction and shredding efficiencies will enable 40% of contaminated equipment and building debris to be volume reduced by one-half. Soil washing will be utilized to process treatable soils (87% of contaminated material). Soil cleaning efficiencies of 88% will be achieved. The

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cleaned soil will be put back on site as clean fill. No significant amounts of contamination, including mixed waste, beyond that already addressed by the baseline plan will be found. Design engineering costs have been reduced 50% --remediation subcontractors will be required to detail design their activities subject to prime contractor approval. Innovative methods will be used to demolish large building structures. Structures and slabs will be reduced through the use of appropriate demolition methods to small enough pieces to be processed through compaction and shredding without significant additional handling. The Modular Office Building and Modular Laboratory are virtually clean and will require only verification and relocation. The Guard Shack and the ES&H Building require only roof decontamination. Land Areas A. E. and G require no remediation. The parking lot land (Area F) under the asphalt will also prove to be clean and require no remediation. The selected remedy for the CAMU will be pump and treat. Issues such as the reduction in release limit for Technetium99 now being promulgated by the NRC, the more stringent NPDES limits to be phased in over the next 3 years, and the change in rad. compliance oversight engendered by the NRC's handoff to the Ohio Department of Health (ODOH) will have no significant effect on project costs.

Safety & Health Hazards:

The facility is being decommissioned to remove contaminated buildings, equipment, soils, and groundwater so the site can be released for unrestricted use. The appropriate S&H functions are included in the PBS to maintain safe and compliant operations during the decommissioning process.

The following major categories of S&H hazards have been identified that could impact workers, the public, or the environment during site decommissioning: Radiological; Chemical; Physical.

The buildings, equipment, soils, and a limited area of groundwater are radiologically contaminated and therefore pose a radiological hazard to workers. A small area is also chemically contaminated with trichloroethylene (TCE) which poses a chemical hazard to workers. Physical hazards including demolition hazards, electrical, confined spaces, noise, temperature, lifting, tripping, falls, elevated work areas, and other normal occupational safety hazards related to building deconstruction and soil remediation will persist through the end of the project.

The project has developed a Decommissioning Plan (RDP-ESH-007) which identifies the above general hazards associated with site decommissioning. The plan describes how the hazards will be mitigated so that work can be done safely, with minimal impact to the worker, public, and the environment.

The Decommissioning Plan was approved by the Nuclear Regulatory Commission in September 1997. As part of this approval, NRC developed a Safety Evaluation Report and an Environment Assessment. These documents identify, analyze, and estimate the risk associated with the radiological, chemical, and physical hazards which could potentially occur to site workers, the public, or the environment. These documents outline site hazards which can be expected throughout site decommissioning. The final goal is unrestricted release of the site with all major hazards categories mitigated.

Safety & Health Work Performance:

Physical work activities are controlled at the site through the use of procedures, plans, operational work requests, work instruction packages, and radiation and safe work permits. The primary document for controlling major physical work at the site is the Work Control Process Procedure (RDP-MGT-100). This procedure has been developed to ensure the safe and efficient performance of physical work through the development, approval, and use of detailed procedures describing physical work activities. This procedure relies on the incorporation of relevant portions of the sites Safety Plan (RDP-SAF-100) and the Health Physics Manual (RDP-HP-060). After a work procedure is developed, a hazard assessment is conducted and a

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Radiation Work Permit (RWP) and Safe Work Permit (SWP) are completed. Workers are trained in the procedure as well as any appropriate health and safety hazards and the appropriate measures to mitigate the hazard (engineering controls, administrative controls, and/or personnel protective equipment). The procedure also may include hold points to verify appropriate health and safety measures are in place. Finally, the facility has a Stop Work Authority Procedure (RDP-QA-106) where any site worker may stop work in the event there is imminent danger to life or health.

Appropriate resources (both costs and skill mix) have been planned for the duration of the project. There are no known unfunded S&H resources at this time.

PBS Comments:

External influences upon the project include the demographics of a Northeastern Ohio economy strongly based upon industry. Ashtabula County is in a period of significant transition. In such periods, the importance of stability in funding, and, by extension, employment at the site cannot be over emphasized. This was demonstrated in early FY 1995 when significant reductions in project funding, and the layoffs that resulted, culminated in inquiries being made, and a visit conducted by staffers from the U.S. Senate and Congressional offices of Senator Glenn and Congressman La Tourette, respectively. Agreements forged as an outcome of that situation resulted in the current partership between DOE and RMI Environmental Services (RMIES), the Decommissioning Operations Contractor. The partnership was formed with the shared vision and trust to plan, and safely, but aggressively, execute and complete remediation activities at the site.

This local sensitivity to stable employment and its attendant high-level political importance only serve to emphasize the necessity for stability in the project's outyear funding profile. Without such stability, accurate work force projections for site remediation efforts are impossible. Continually fluctuating funding levels result in erratic work force levels. When this occurs, the potential for Congressional intervention increases dramatically.

Baseline Validation Narrative:

The preliminary Decontamination and Decommissioning Design Report was issued on July 26, 1993. Cost and schedule estimates relative to the physical D&D effort were prepared based upon the Final Draft Decommissioning Plan dated December 30, 1991. These estimates were reviewed and validated by an Independent Cost Estimate (ICE) review team. In 1994, the validated estimates were incorporated into the RMIDP Facility Remediation Plan; the project's first formal baseline. The project's budget, including the estimate portion of the RMIDP Facility Remediation Plan, has been validated by the DOE-Ohio Field Office in each subsequent year.

General PBS Information

Project Validated? Yes Date Validated: 9/2/1993

Has Headquarters reviewed and approved project? No

Date Project was Added:12/1/1997Baseline Submission Date:7/8/1999

FEDPLAN Project? Yes

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General PBS Information

CERCLA RCRA DNFSB AEA **UMTRCA DOE Orders** Other **Drivers:** State Ν Y N N Y Y Y Ν

Project Identification Information

DOE Project Manager: Ward E. Best

DOE Project Manager Phone Number: 440-993-1944 **DOE Project Manager Fax Number:** 440-993-1961

DOE Project Manager e-mail address: ward.best%ch@ch.doe.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	106,692	1,644	108,336	7,049	7,049	8,457	8,457	14,855	10,643	11,485	12,566	13,173	13,972	14,411	81
PBS Baseline (constant 1999 dollars)	99,633	1,094	100,727	7,049	7,049	8,457	8,457	14,855	10,363	10,889	11,601	11,841	12,229	12,282	67
PBS EM Baseline (current year dollars)	106,692	1,644	108,336	7,049	7,049	8,457	8,457	14,855	10,643	11,485	12,566	13,173	13,972	14,411	81
PBS EM Baseline (constant 1999 dollars)	99,633	1,094	100,727	7,049	7,049	8,457	8,457	14,855	10,363	10,889	11,601	11,841	12,229	12,282	67
	2007	2008	2009 2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	83	86	87 91	488	809	0	0	0	0	0	0	0	0	0	0

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	2007	2008	2009	2010					31- 203 35 204			2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (constant 1999 dollars)	67	68	67	68	336	488	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	83	86	87	91	488	809	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	67	68	67	68	336	488	0	0	0	0	0	0	0	0	0
Baseline Escalation	n Rates														
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
	0.00%	0.00%	0.00%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%		
	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070		
	2.70%	2.70%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%		

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/1/2018

Current Projected End Date of Project: 9/30/2016

Explanation of Project Completion Date Difference (if applicable):

The updated baseline assumes that, based upon data gathered during the current pilot level tests conducted using prefabricated vertical drains, the pump and treat process will be successful in reaching a suitably "clean" level of groundwater by the end of FY 2016 rather than 2018.

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars): 64,978 Actual 1997 Cost: 7,049 Actual 1998 Cost: 8,457

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Project Reconciliation

Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars): 49,472 Inflation Adjustment (2.7% to convert 1998 to 1999 dollars): 1,336

Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 50,808

Project Cost Changes

Cost Adjustments Reconciliation Narratives

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+):

Cost Growth Associated with Scope Previously Reported (+):

Cost Reductions Due to Science & Technology Efficiencies (-):

Subtotal: 50,808

Additional Amount to Reconcile (+): 34,413 \$34,609K Due to accurate depiction of baseline and (\$195K) due to FY97Actual Costs escalation error.

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 85,221

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
23 Intermodals of LLW Shipped to Envirocare of Utah	14		9/30/1999		9/30/1999						
7,000 Tons of Soil Processed	15		9/30/1999		9/30/1999						
End of Building Deactivation	7		2/28/2005								
End of Building Decommissioning	17		4/30/2005								
End of CAMU Remediation	21		9/30/2016								
End of Legacy Waste Removal and Equipment Remediation	8		9/30/1999								
End of Soil Remediation-Campaign I	13		7/31/2000								
End of Soil Remediation-Campaign II	18		9/30/2005								

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Project OH-AB-01 / Remediation

Milestones												
Milestone/Activity			riginal Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
MSO Pilot Unit Refurbished and Operational for Surrogate Testing	11			7/1/1999		7/1/1999						
NRC Terminates License SMB-602, Site Released for Unrestricted Use	19			9/30/2005							Y	
Project Mission Complete	20			9/30/2005								
Remediation of Non-Operational Equipment Complete	10			6/30/1999		6/30/1999						
Soil Wash Plant Construction and Equip. Installation Complete	6			3/1/1999		3/1/1999						
Soil Washing Plant Operations Begin	9			6/1/1999		6/1/1999						
Start of Building Deactivation	4			5/1/1995								
Start of Building Decommissioning	5			11/1/1998								
Start of CAMU Remediation	1			4/1/1993								
Start of Legacy Waste Removal and Equipment Remediation	2			4/1/1993								
Start of Soil Remediation-Campaign I	3			12/1/1997								
Start of Soil Remediation-Campaign II	16			12/15/2002								
Treatability Test Complete-Stabilize Lead Contaminated Soil (Area C)	12			8/31/1999		8/31/1999						
Commence Operation of Soil Treatment Facility.				6/1/1999						Y	Y	
Site Treatment Plan Milestones Complete				12/31/1999	12/31/1999			Y				
Project Start				4/1/1993								
Milestones - Part II												
Milestone/Activity Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complet		Work Scope Risk	Intersite Risk	Cancell	ed	Milestone De	escription

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
23 Intermodals of LLW Shipped to Envirocare of Utah	14									Y	
7,000 Tons of Soil Processed	15									Y	
End of Building Deactivation	7		Y				1	1	1		
End of Building Decommissioning	17		Y				1	1	1		
End of CAMU Remediation	21		Y		Y		1	1	1		The TCE contained in the site's groundwater contamination plume has been cleaned to prescribed levels through the pump and treat process as recommended in the Corrective Measures Study adopted by the USEPA.
End of Legacy Waste Removal and Equipment Remediation	8		Y				1	1	2		
End of Soil Remediation- Campaign I	13	Y					2	1	1		
End of Soil Remediation- Campaign II	18		Y				2	1	1		
MSO Pilot Unit Refurbished and Operational for Surrogate Testing	11									Y	
NRC Terminates License SMB-602, Site Released for Unrestricted Use	19		Y				1	1	1		
Project Mission Complete	20	Y	Y			Y	1	1	1		Site remediation is complete; DOE presence ends, NRC License is terminated; Site is released to RMI Titanium Company for free and unrestricted use; the RCRA Part B permit is closed out; LTS&M continues with CAMU Pump-and-

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
											Treat activities.
Remediation of Non-Operational Equipment Complete	10		Y				1	1	1		
Soil Wash Plant Construction and Equip. Installation Complete	6									Y	
Soil Washing Plant Operations Begin	9						2	1	1	Y	
Start of Building Deactivation	4		Y				1	1	1		
Start of Building Decommissioning	5		Y				1	1	1		
Start of CAMU Remediation	1	Y					1	1	1		
Start of Legacy Waste Removal and Equipment Remediation	2		Y				1	1	1		
Start of Soil Remediation- Campaign I	3	Y					1	1	1		
Start of Soil Remediation- Campaign II	16	Y					2	1	1		
Treatability Test Complete- Stabilize Lead Contaminated Soil (Area C)	12									Y	
Commence Operation of Soil Treatment Facility.							2	1	1		
Site Treatment Plan Milestones Complete							1	1	2		
Project Start		Y		Y			1	1	1		

Performance Measure Metrics

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Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planne 200
RS														
Assess.	NR	1.00	0.00	1.00	2.00	1.00	1.00							
RS														
Cleanup	NR	2.00	1.00	3.00										
Fac.														
Decom Assess.	NF	1.00	0.00	1.00	25.00									
Fac.														
Decom- Cleanup	NF	25.00	0.00	25.00					1.00	2.00	9.00	6.00	1.00	
Fac.														
Deact. During Per.	NF	23.00	0.00	23.00					3.00	1.00	9.00	4.00		
MLLW														
Treatment	M3	0.00	0.00	0.00	0.00		0.00							
MLLW														
Storage	M3													
MLLW														
Comm. Disp.	M3	0.00	0.00	0.00	0.00		0.00							
LLW														
Storage	M3								18.00	42.00	37.00	8.00		
LLW														
Comm. Disp.	M3	0.00	0.00	0.00	0.00		0.00							
LLW														
Ship to DOE Disp.	M3	1,160.00	0.00	1,160.00	0.00		0.00	59.00	62.00	158.00	235.00	517.00	100.00	

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Performance Measure	e Metric	S												
Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planne 200
Rem. Waste														
Disposed	M3	12,033.00	34.00	12,067.00	0.00		0.00	1,491.00	440.00	2,068.00	1,680.00	1,966.00	2,602.00	1,086.0
Tech.														
Deployed	Ntd	2.00	0.00	2.00					1.00	1.00				
Category/Subcategory	Units	Planne 200				Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	2016	2021	1 - 2	nned P 026 - 2030	lanned 2031 - 2035
RS														
Assess. RS	NR													
Cleanup Fac.	NR		2.0	00						1.0	00			
Decom Assess. Fac.	NF		1.0	00										
Decom- Cleanup Fac.	NF		6.0	00										
Deact. During Per. MLLW	NF		6.0	00										
Treatment MLLW	M3													
Storage MLLW	M3													
Comm. Disp.	М3													

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Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
LLW													
Storage LLW	M3												
Comm. Disp. LLW	M3												
Ship to DOE Disp. Rem. Waste	M3		29.00										
Disposed Tech.	M3	1,086.00	697.00	3.00	4.00	3.00	3.00	4.00	17.00	3.00			
Deployed	Ntd												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
RS													
Assess. RS	NR									3.00			
Cleanup Fac.	NR									3.00			
Decom Assess. Fac.	NF									26.00			
Decom- Cleanup Fac.	NF									26.00			
Deact. During Per. MLLW	NF								4.00	26.00			
Treatment	M3									1.00			

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Project OH-AB-01 / Remediation

Category	y/Subcat	egory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planne 2061 203	- 206		ptions L	ifecycle Total				
MLLW																	
Storag MLLW	ge		M3														
Comm LLW	. Disp.		M3										0.00				
Storag LLW	ge		M3														
Comm LLW	. Disp.		M3										0.00				
Ship to Rem. Wa	o DOE D aste	isp.	M3									1	,236.00				
Dispos Tech.	ed		M3								3	319.00 10),983.00				
Deploy	yed		Ntd									1.00	2.00				
Release	Sites																
Site Code	RSF ID	Change Flag	Description			Class/Sul	oclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0026		$N\!/A \setminus Buildings$	& Equipment	t	Waste/Lar	ndfills	1995	1995	5/31/1995	2005	2005			N		Y
AEMP	0027		N/A \ Soil Reme	diation		Waste/Lar	ndfills	1997	1997	9/30/1997	2005	2005			N		Y
AEMP	0028		N/A \ Groundwa	ter Remediat	ion	Surface an Groundwa ter Plume	ter/Groundwa	1995	1995	5/31/1995	2016	2018			N		Y

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Site Summary Level: Ashtabula Environmental Management Project HQ ID: 0228

Project OH-AB-01 / Remediation

Facility	Deco	mmissioning															
Site Code	RSF ID	Change Description Flag	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year		Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0001	$N/A \setminus NE \ Billet \ Storage$ Warehouse	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995		5/31/1995	1999	2002		2001	2002		1993	N		N
AEMP	0002	$N/A \setminus Compressor \ Room$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2002		1993	N		Y
AEMP	0003	N/A \ Dock Area	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2002			N		Y
AEMP	0004	$N/A \setminus Emergency \ Equipment \\ Storage \ Building$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2002			N		Y
AEMP	0005	$N/A \setminus RMI$ Substation	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2002	2003			N		Y
AEMP	0006	$N/A \setminus Enclosed \ Truck \ Ramp$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2003		2001	2003			N		Y
AEMP	0007	$N/A \setminus Outdoor \ Substation$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2002	2003			N		Y
AEMP	0008	N/A \ Main Plant	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2003	2004			N		Y
AEMP	0009	N/A \ Tool Crib	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2001	9/17/1999		N		Y
AEMP	0010	$N/A \setminus Northwest \ Storage \ Bldg$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2000	2000		2000	2001			N		Y

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Operations/Field Office: Ohio

Print Date: 3/9/2000

Site Summary Level: Ashtabula Environmental Management Project HQ ID: 0228

Project OH-AB-01 / Remediation

Facility	Deco	mmissioning															
Site Code	RSF ID	Change Description Flag	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year		Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0011	N/A \Die Head Filter Bldg- Stack #1	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2003		2001	2003			N		Y
AEMP	0012	$N/A \setminus Haz \ Waste \ Storage \ Bldg$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2003			N		Y
AEMP	0013	$N/A \setminus RF-3$ Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1999		8/6/1999	2000	2002			N		Y
AEMP	0014	$N/A \setminus RF\text{-}6 \ Building$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2000		2002	2001			N		Y
AEMP	0015	$N/A \setminus RF\text{-}6$ Building Addition	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2000		2002	2001			N		Y
AEMP	0016	N/A \Run Out Table Filter Bldg- Stack #3	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2000			N		Y
AEMP	0017	N/A \Campbell Saw Filter Bldg- Stack #4	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2000			N		Y
AEMP	0018	$N/A \setminus Sewage \ Treatment \ Plant$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0019	$N/A \setminus Old Incinerator$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1999		4/15/1999	1999	2000	4/21/1999		N		Y
AEMP	0020	$N/A \setminus CEI$ Substation	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2002		2002	2003			N		Y

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Project OH-AB-01 / Remediation

Facility	Facility Decommissioning																	
Site Code	RSF ID	Change Desc Flag	cription	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year		Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0021	N/A Plan	\ Wastewater Treatment t	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2002	2003			N		Y
AEMP	0022	N/A	\ Modular Lab	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0023	N/A	\ ES&H Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0024	N/A	\ Modular Office	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0025	N/A	\ Guardhouse	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0030	N/A	\Temporary Facilities	Buildings & Equipment\Equipment	Radiological Facility	2005	2005		2005	2005		2005	2005			N		Y
Facility	Deac	tivation																
Site Code	RSF ID	Change Desc Flag	cription	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year		Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0001		\ NE Billet Storage ehouse	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995		5/31/1995	1999	2002		2001	2002		1993	N		N
AEMP	0002	N/A	\ Compressor Room	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2002		1993	N		Y
AEMP	0003	N/A	\ Dock Area	Buildings &	Non-Nuclear	1995	1995	5/31/1995	2001	2002		2001	2002			N		Y

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Project OH-AB-01 / Remediation

Facility Deactivation																	
Site Code	RSF ID	Change Description Flag	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess Year	Actual Assess. Date	Plan. Deac. Year	Deac.	Actual Deac. Date	Comp.	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
			Equipment\Other Buildings	Facility													
AEMP	0004	N/A \ Emergency Equipment Storage Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2002			N		Y
AEMP	0005	$N/A \setminus RMI$ Substation	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2002	2003			N		Y
AEMP	0006	$N/A \setminus Enclosed \ Truck \ Ramp$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2003		2001	2003			N		Y
AEMP	0007	$N/A \setminus Outdoor\ Substation$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2002	2003			N		Y
AEMP	0008	N/A \ Main Plant	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2003		2003	2004			N		Y
AEMP	0009	$N/A \setminus Tool \ Crib$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2001	9/17/1999		N		Y
AEMP	0010	$N/A \setminus Northwest \ Storage \ Bldg$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2000	2000		2000	2001			N		Y
AEMP	0011	N/A \Die Head Filter Bldg- Stack #1	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2003		2001	2003			N		Y
AEMP	0012	$N/A \setminus Haz \ Waste \ Storage \ Bldg$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2001	2003			N		Y

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Project OH-AB-01 / Remediation

Facility Deactivation																		
Site Code	RSF ID	Change Flag	Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
AEMP	0013		$N/A \setminus RF3$ Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1999		8/6/1999	2000	2002			N		Y
AEMP	0014		$N/A \setminus RF\text{-}6$ Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2000		2002	2001			N		Y
AEMP	0015		N/A \ RF-6 Building Addition	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2000		2002	2001			N		Y
AEMP	0016		N/A \Run Out Table Filter Bldg- Stack #3	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2000			N		Y
AEMP	0017		N/A \Campbell Saw Filter Bldg- Stack #4	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1998			2001	2000			N		Y
AEMP	0018		$N/A \setminus Sewage$ Treatment Plant	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0019		N/A \ Old Incinerator	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	1999		4/15/1999	1999	2000	4/21/1999		N		Y
AEMP	0020		N/A \ CEI Substation	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2002	2002		2002	2003			N		Y
AEMP	0021		$N/A \setminus Wastewater \ Treatment \\ Plant$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2001	2002		2002	2003			N		Y
AEMP	0022		$N/A \setminus Modular\ Lab$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y

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Project OH-AB-01 / Remediation

Facility Deactivation

Site Code	RSF ID	Change Description Flag	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year		Comp. Status	RAD
AEMP	0023	$N/A \setminus ES\&H$ Building	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0024	$N/A \setminus Modular \ Office$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0025	$N/A \setminus Guardhouse$	Buildings & Equipment\Other Buildings	Non-Nuclear Facility	1995	1995	5/31/1995	2005	2005		2005	2005			N		Y
AEMP	0030	N/A \Temporary Facilities	Buildings & Equipment\Equipment	Radiological Facility	2005	2005		2005	2005		2005	2005			N		Y

Technology Deployments

Deployment Year

Deployment Status Planned Forecast Actual Date

Technology Name: Well Injection-Depth Extraction (Prefabricated Vertical Drains)

Potential Deployment 2000

Technology Name: Soil Washing/Chemical Extraction
Deployment Commitment 1999

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